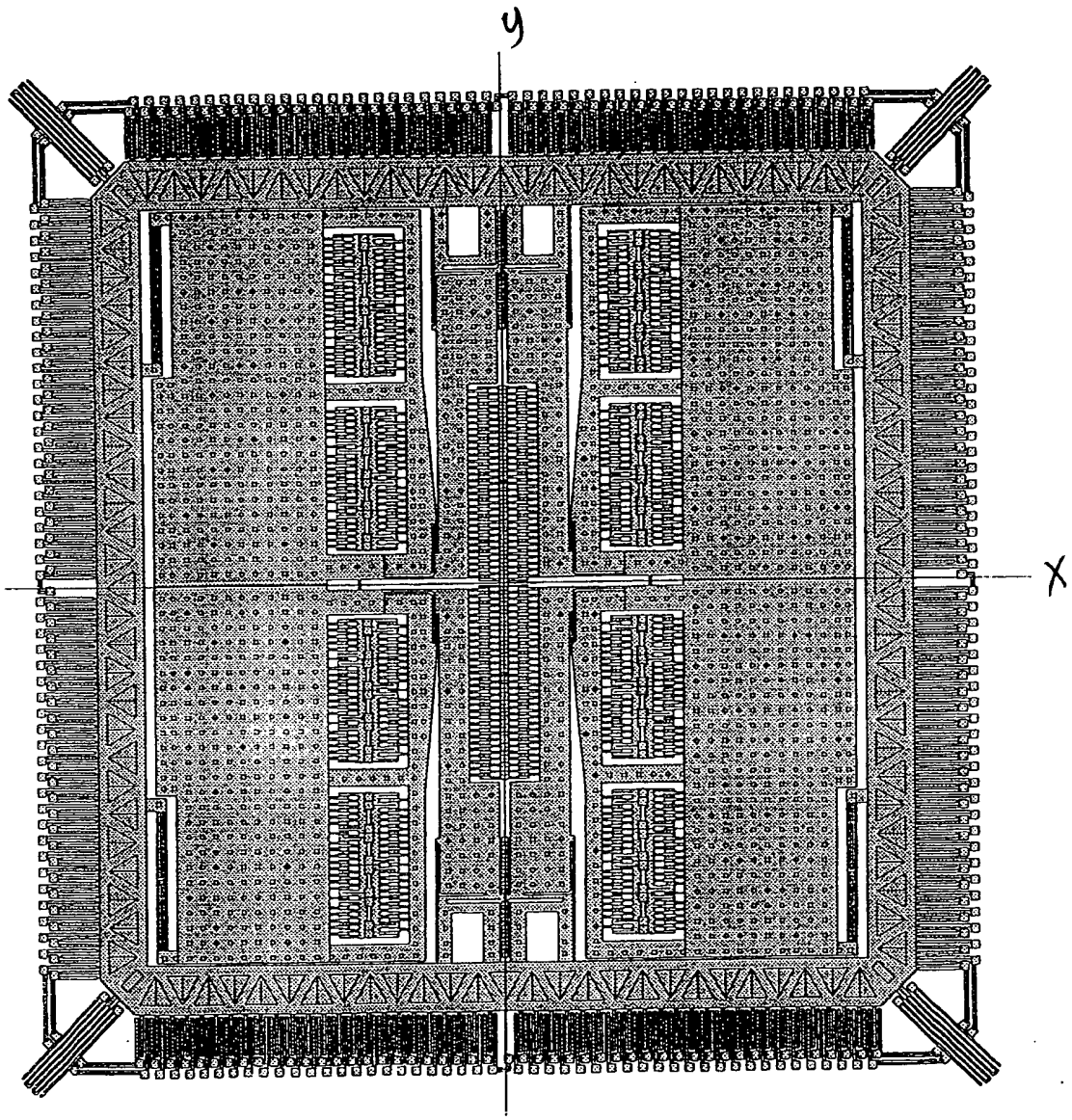
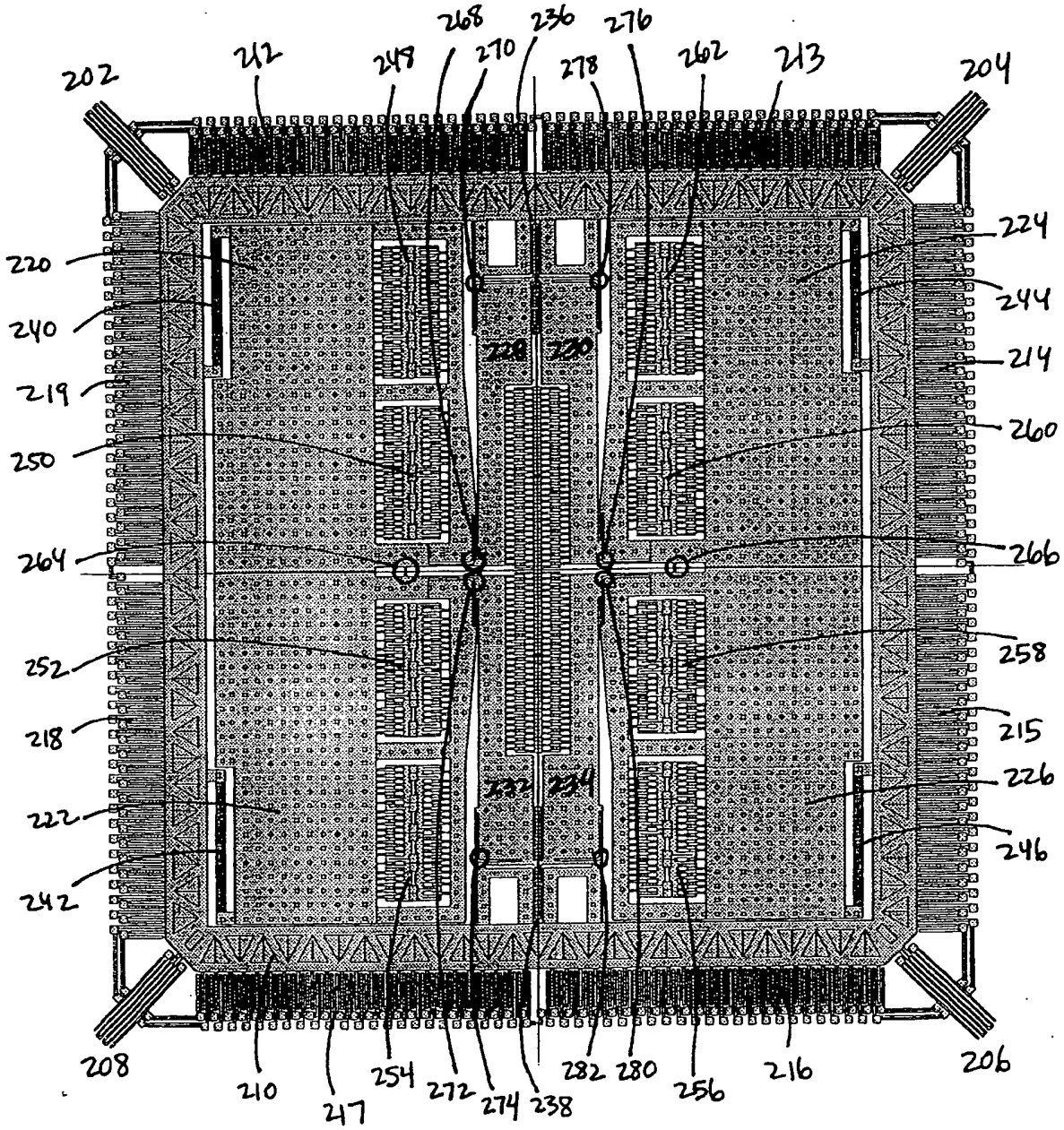


FIG. 1 100


202
212
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276
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244
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246
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254
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274
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282
280
256
216
206

FIG. 2

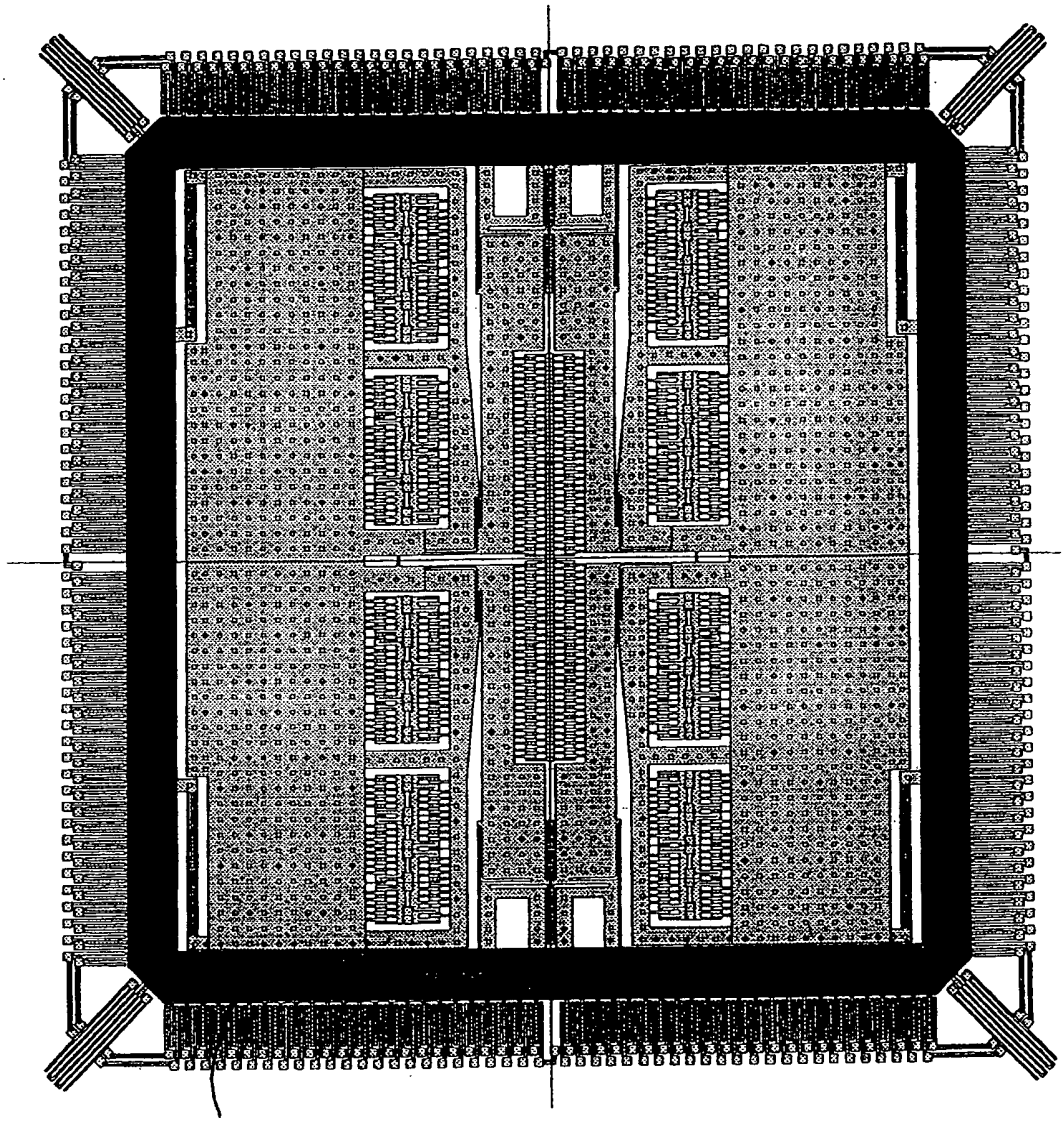


FIG. 3

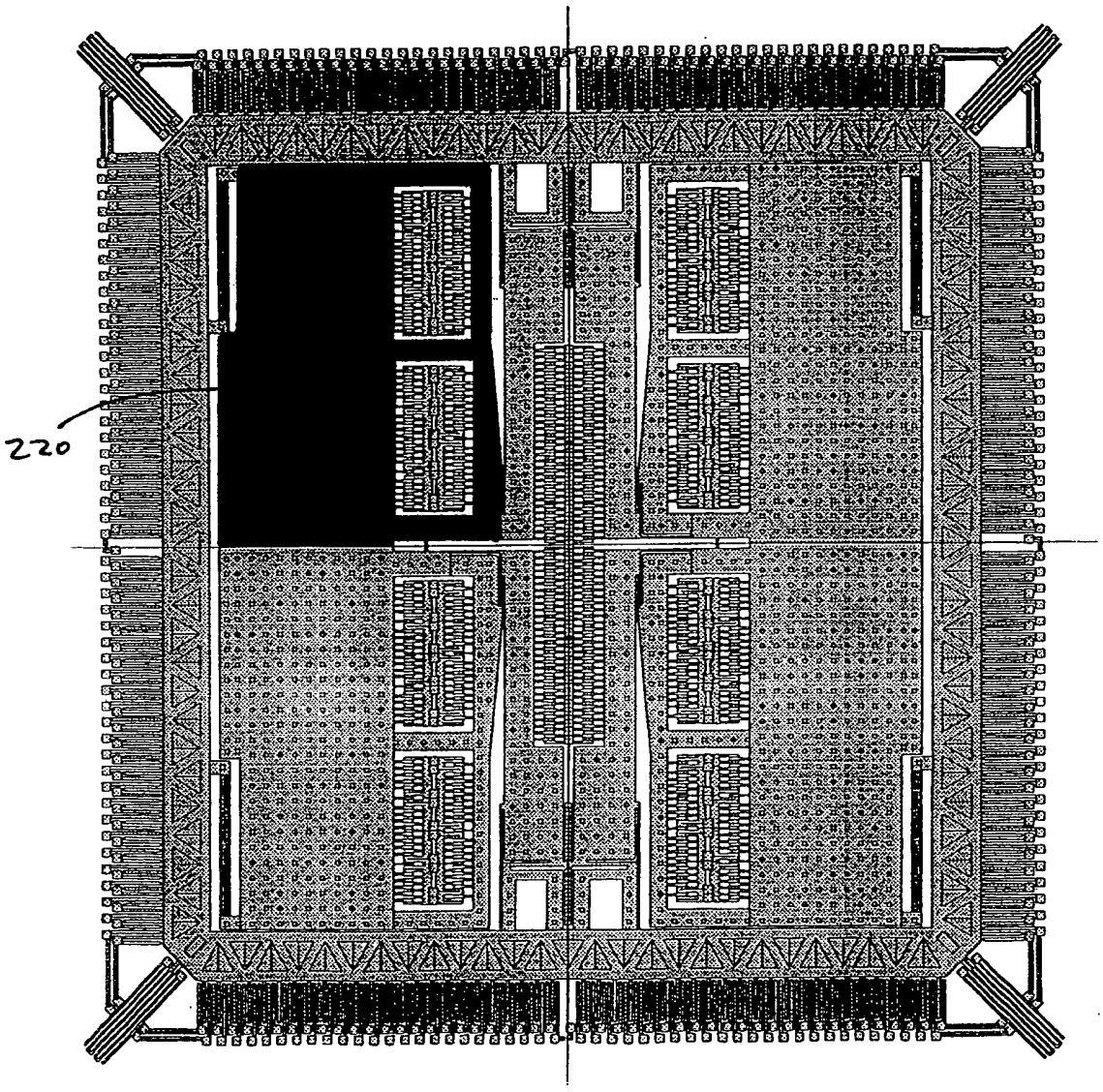


FIG. 4

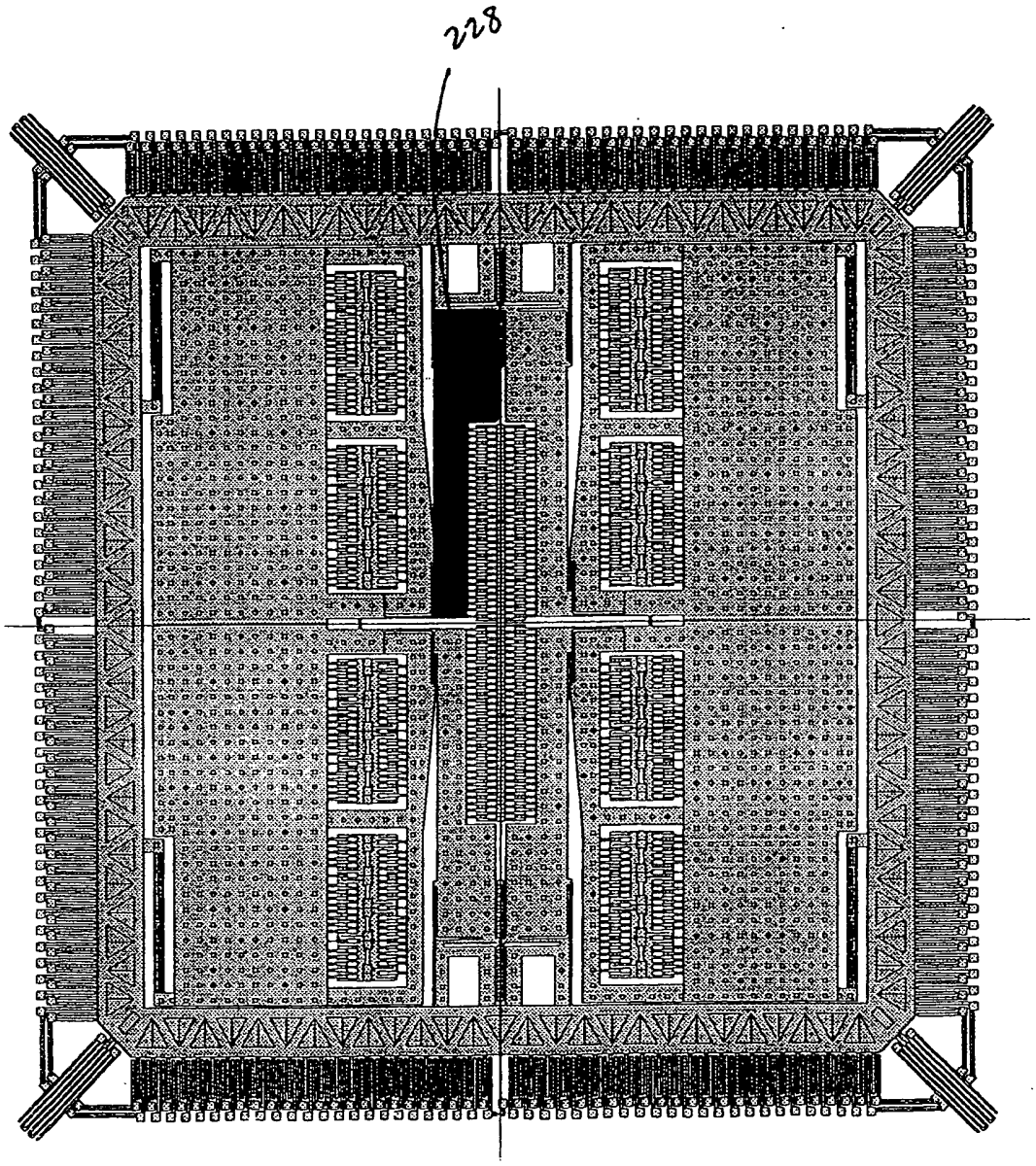


FIG. 5

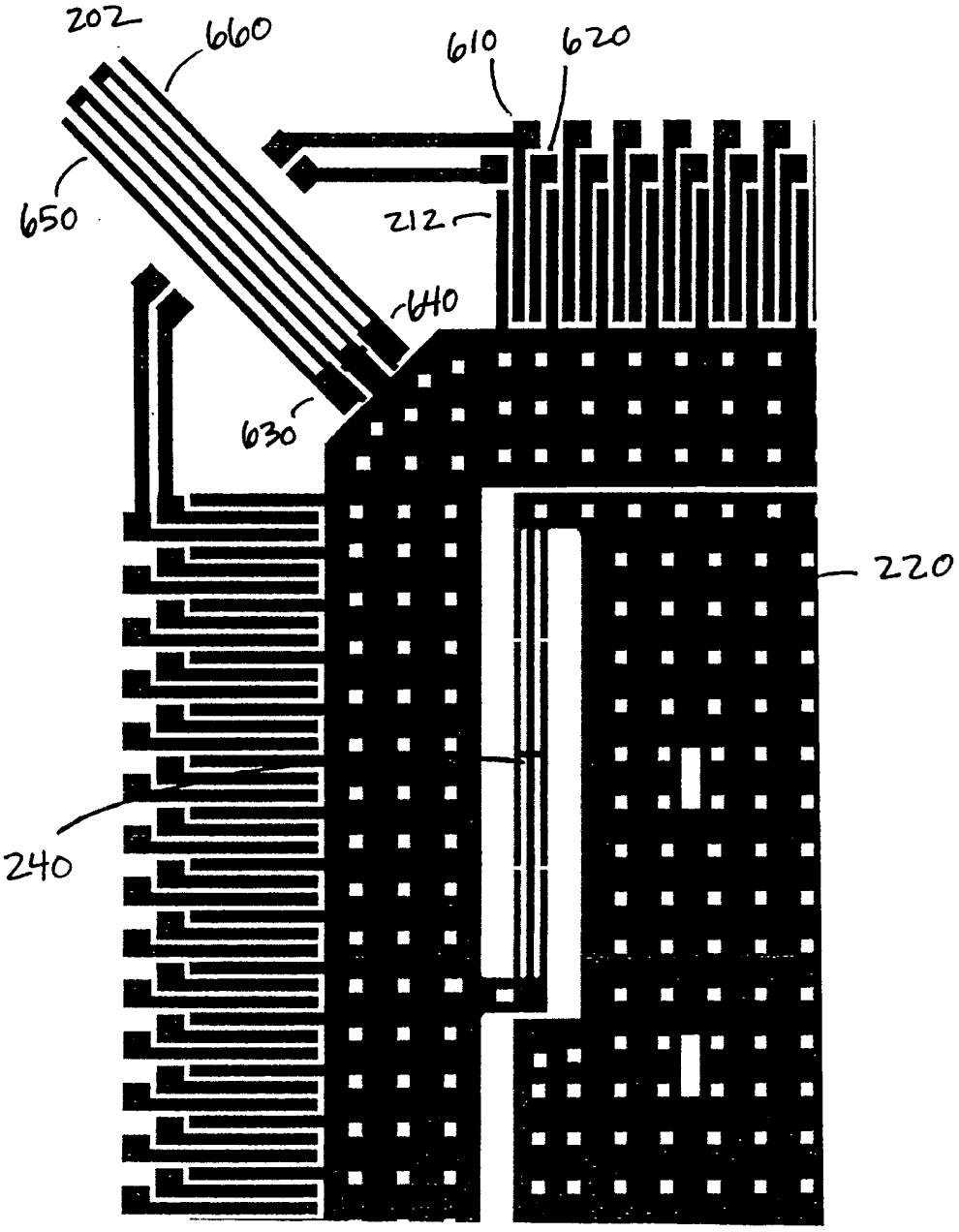


FIG. 6

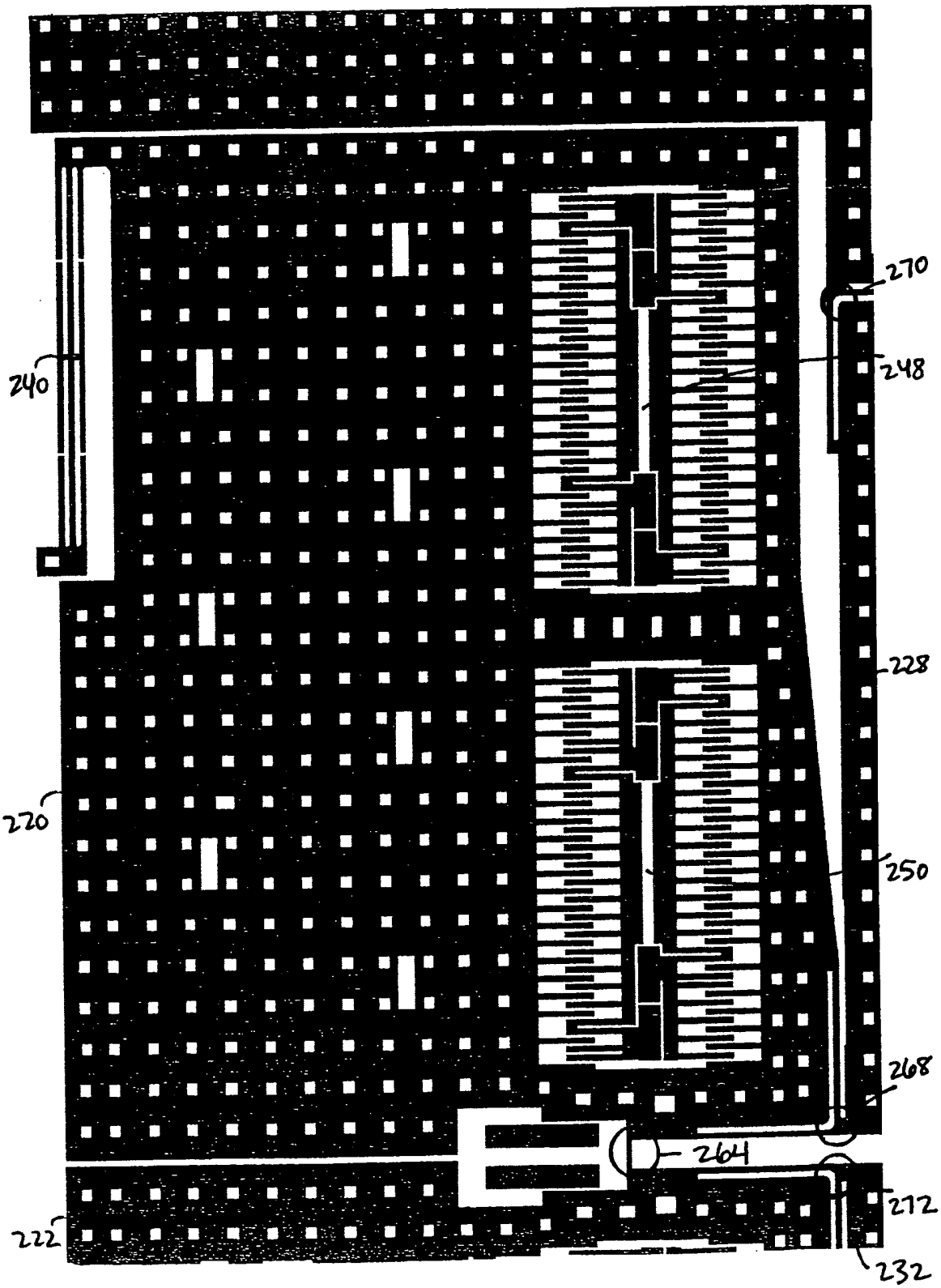


FIG. 7

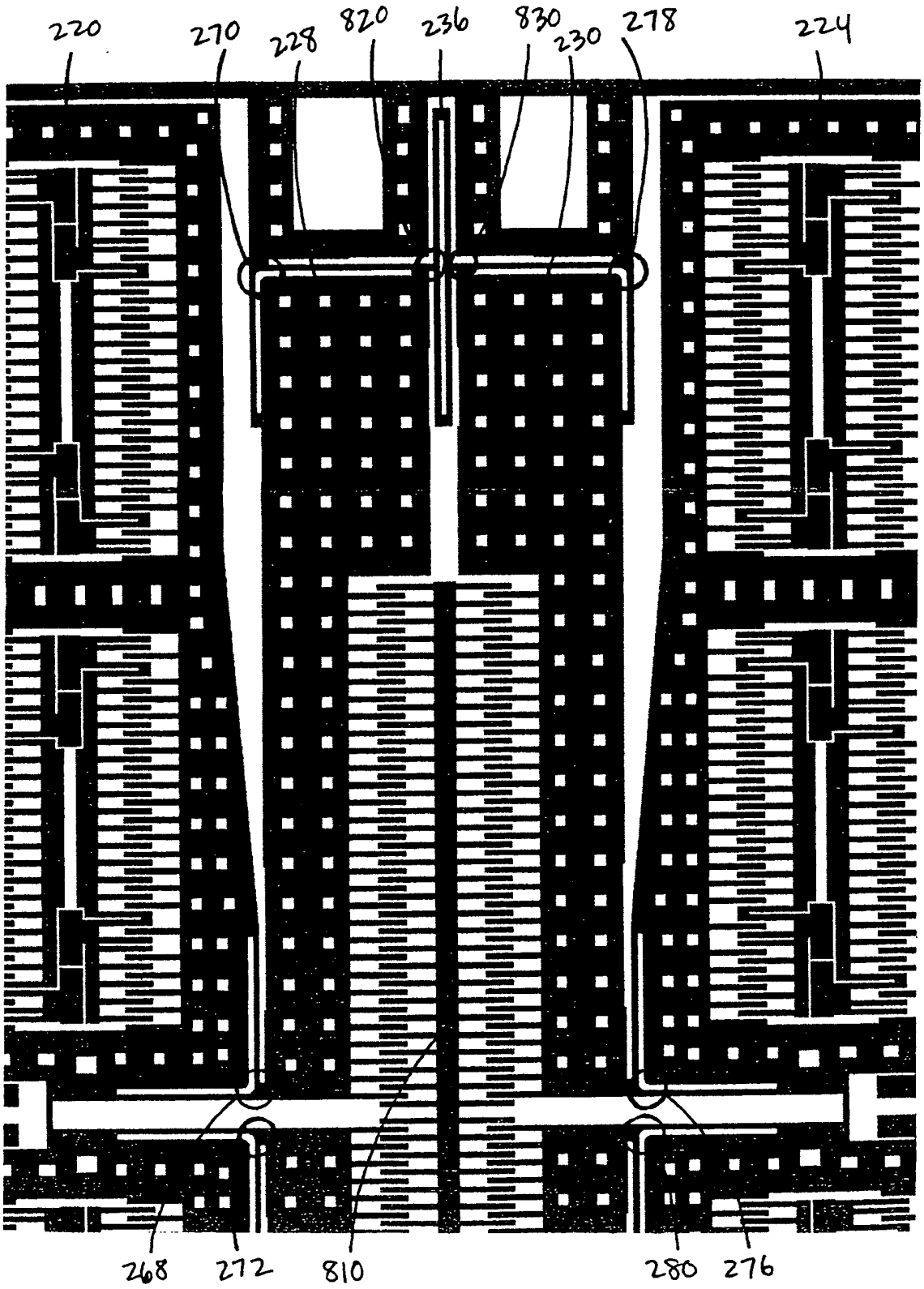


FIG. 8

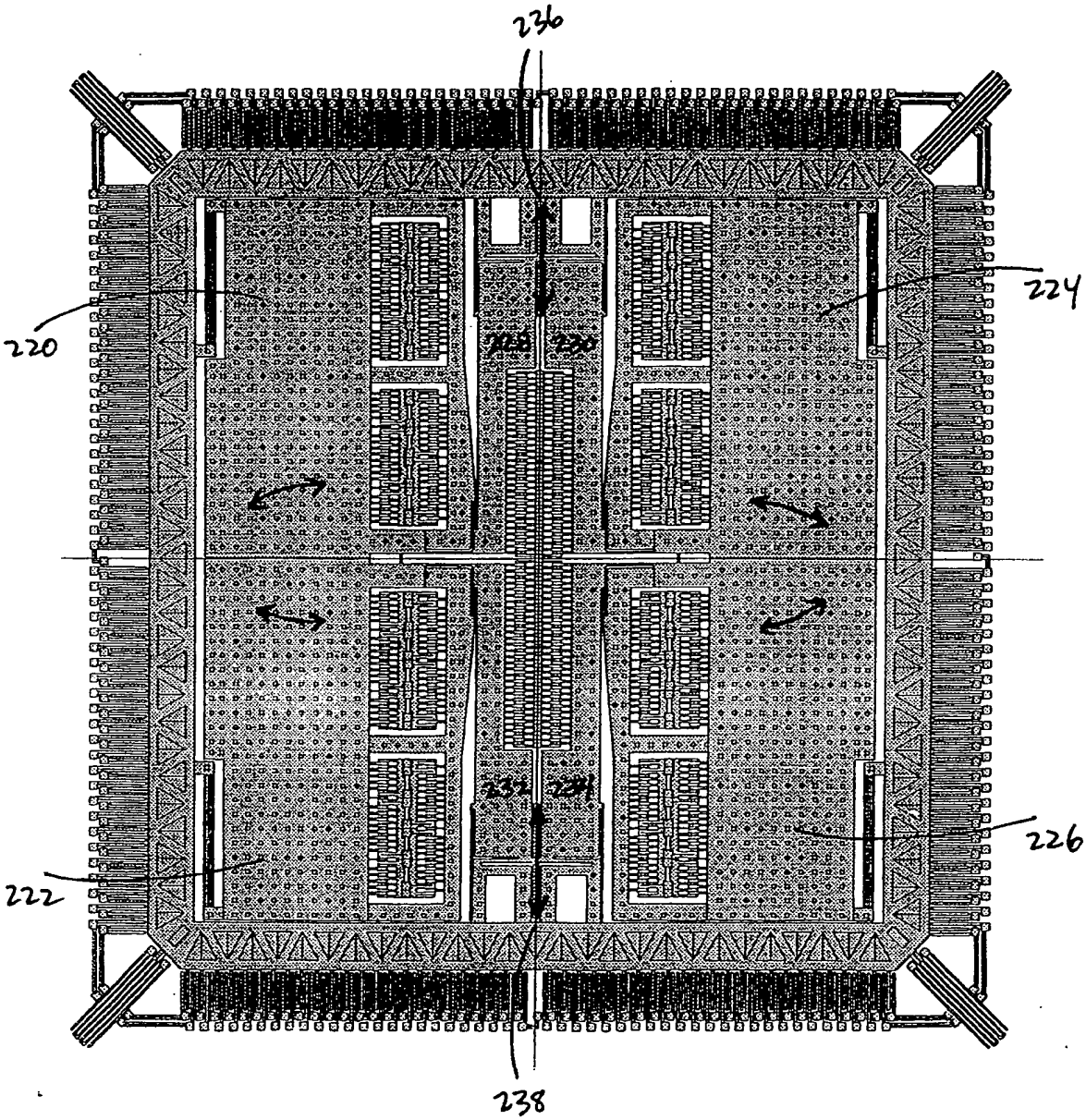


FIG. 9

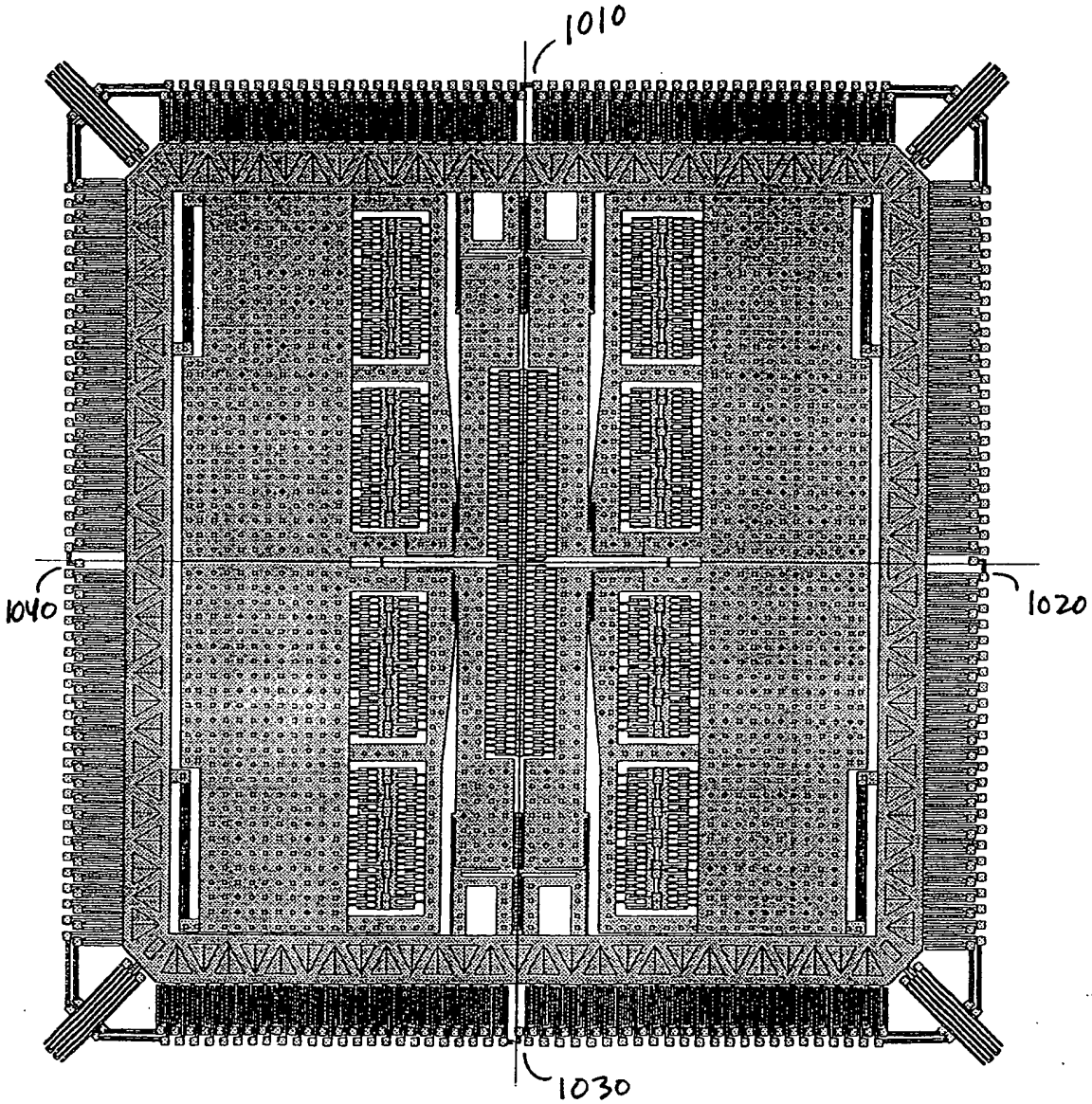


FIG. 10

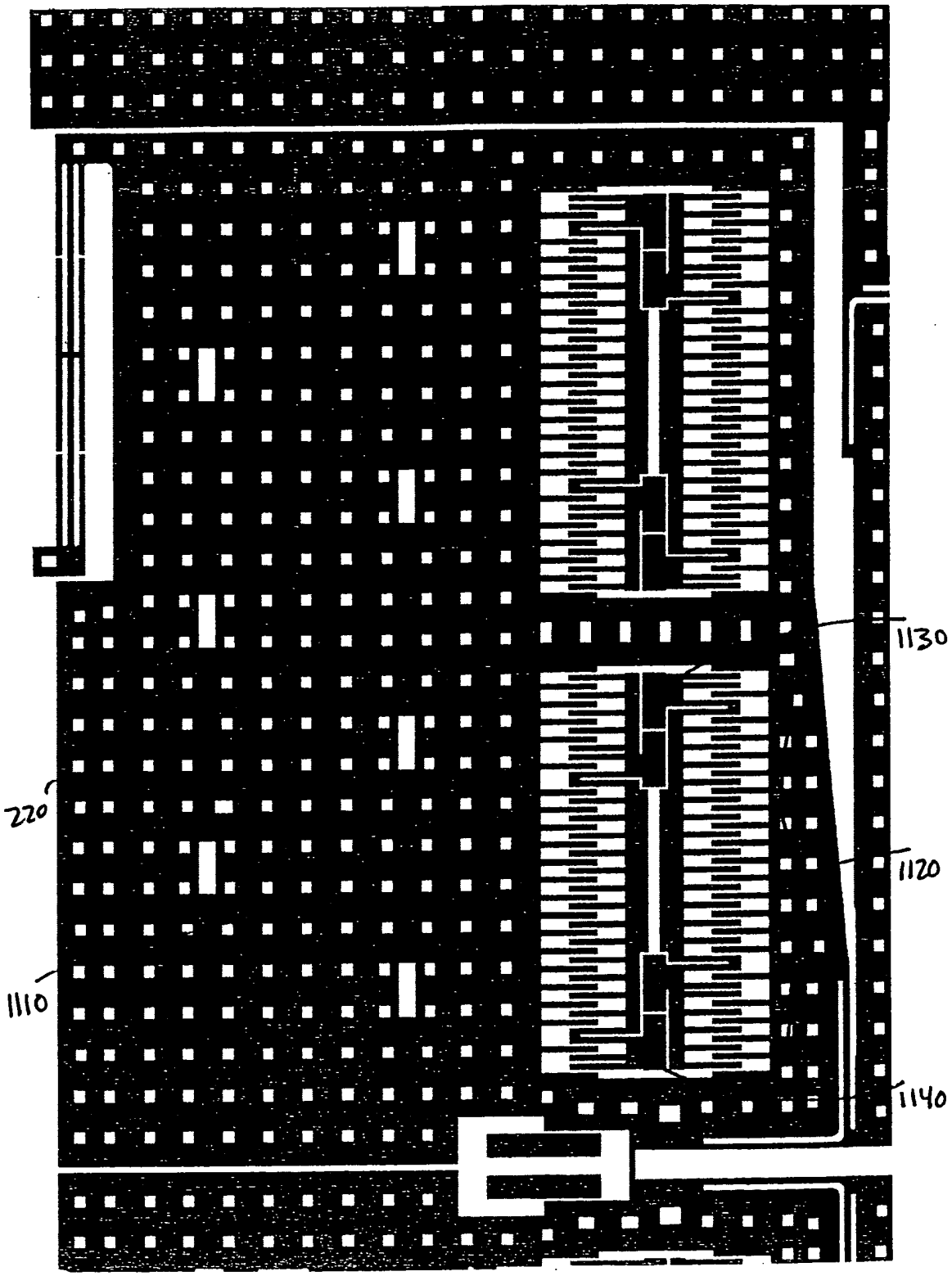


FIG. 11 250

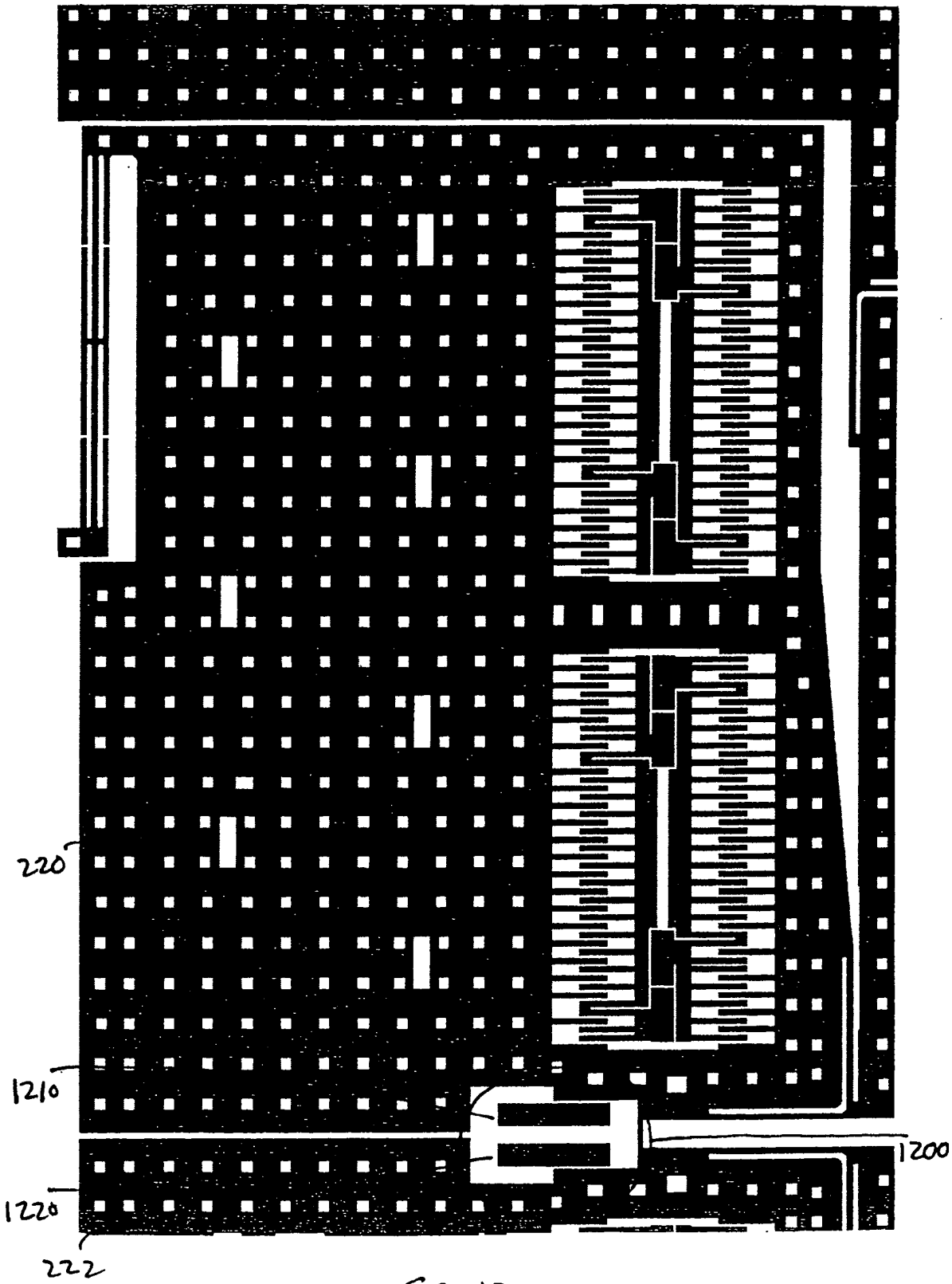


FIG. 12

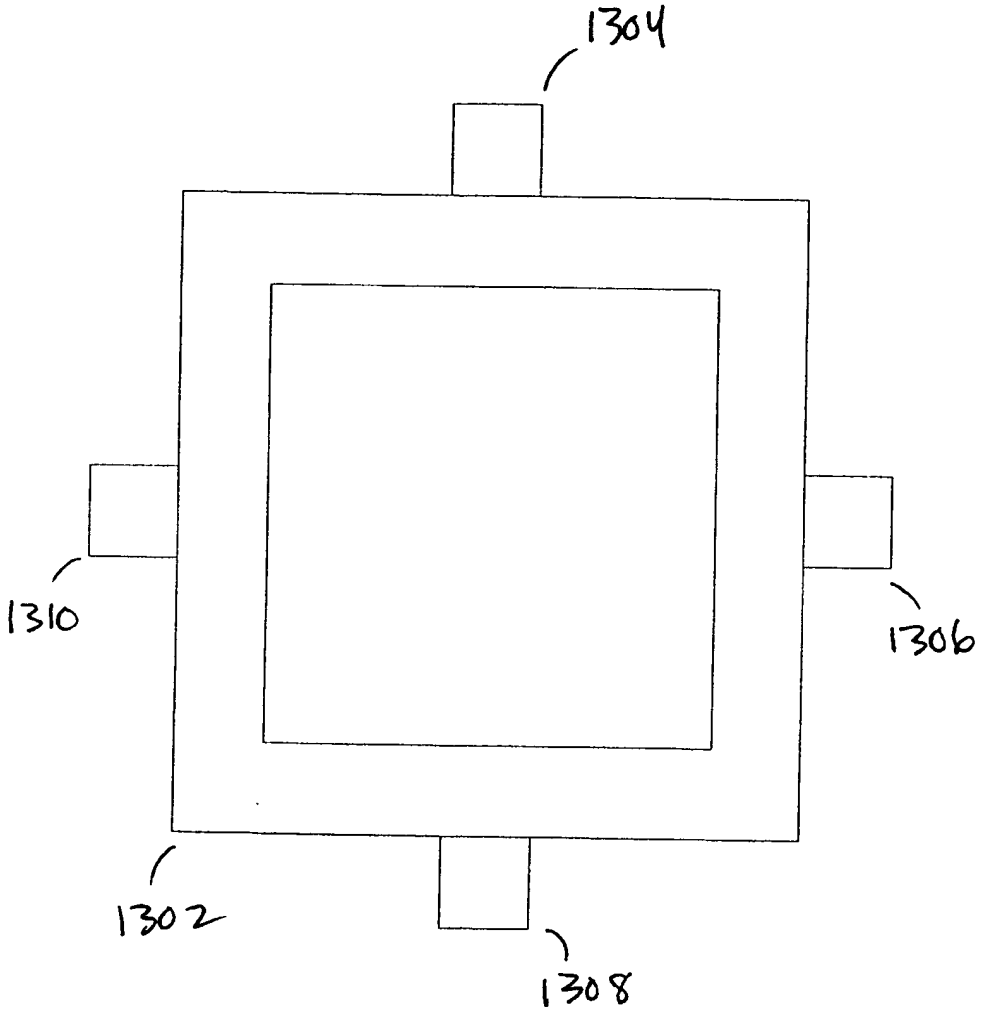


FIG. 13

VELOCITY 2nd HARMONIC DISTORTION

$cf := clp - \frac{sm}{2} - \frac{3 \cdot gg}{2}$ center line of velocity fingers to coupling lever pivot $\frac{cf}{um} = 48.3$

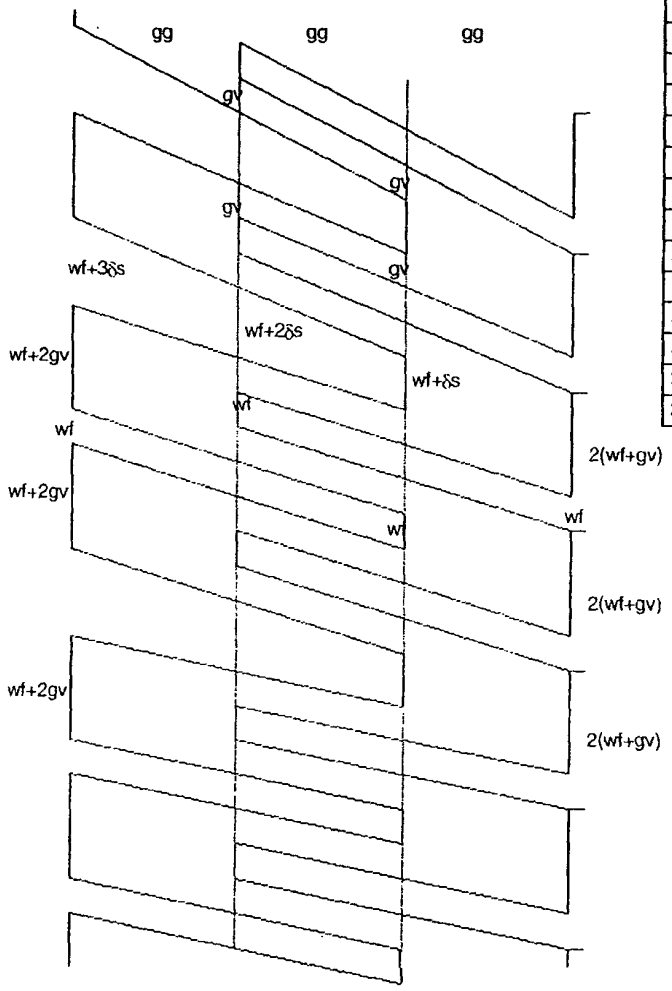
$Nv := 0, 1 .. \frac{v}{8} - 1$ $s(Nv) := \frac{cf}{lcl - Nv \cdot (wf(0) + gv(0)) \cdot 2} \cdot \frac{gg}{um}$

s(Nv) =
1.7
1.7
1.8
1.8
1.8
1.9
1.9
2
2
2.1
2.1
2.2
2.3
2.4
2.4
2.5

gv>gd to allow perpendicular spacing within gd limit.

s is Y coordinate shift of finger for X of gg rounded to 0.1um. This allows the vertices of all fingers on grid.

fingers have uniform pitch on the coupling lever and uniform separation on the fixed bus.



$td(Nv) := (s(Nv) - round(s(Nv), 1)) \cdot \frac{(lcl - Nv \cdot (wf(0) + gv(0)) \cdot 2)}{cf}$ tangential displacement error, um, or effective value...

$tde := \sqrt{\sum_{Nv=0}^{\frac{v}{8}-1} \frac{8 \cdot td(Nv)^2}{v}}$ $tde = 0.12$

FIG. 14

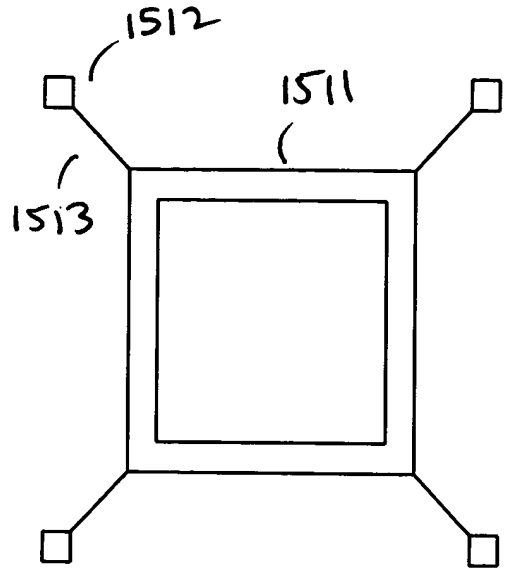


FIG. 15A

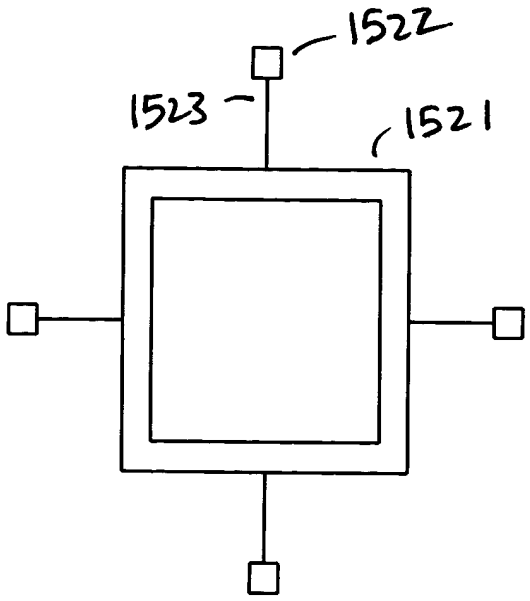


FIG. 15B

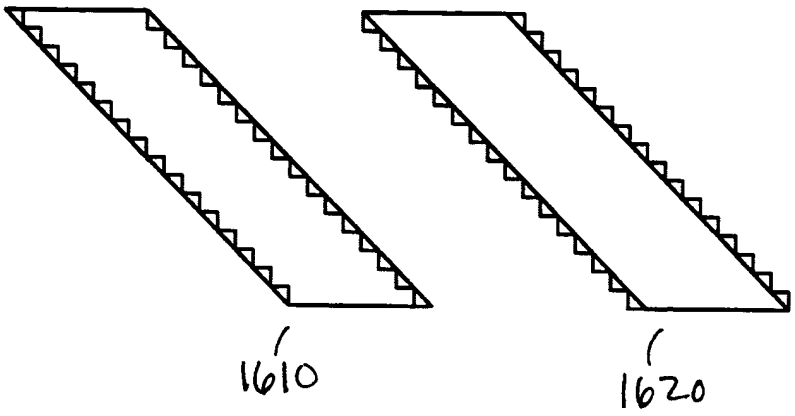


FIG. 16

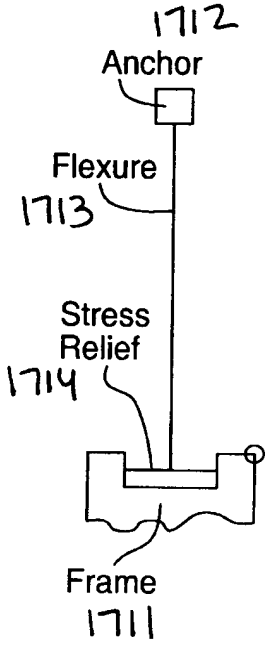


FIG. 17A

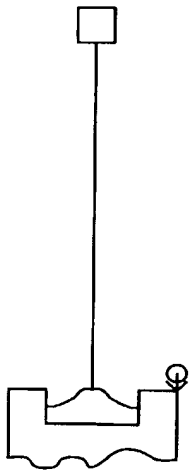


FIG. 17B

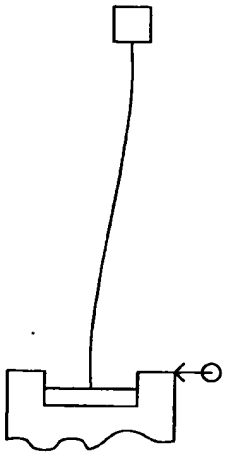


FIG. 17C

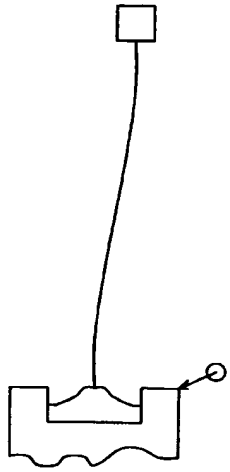


FIG. 17D

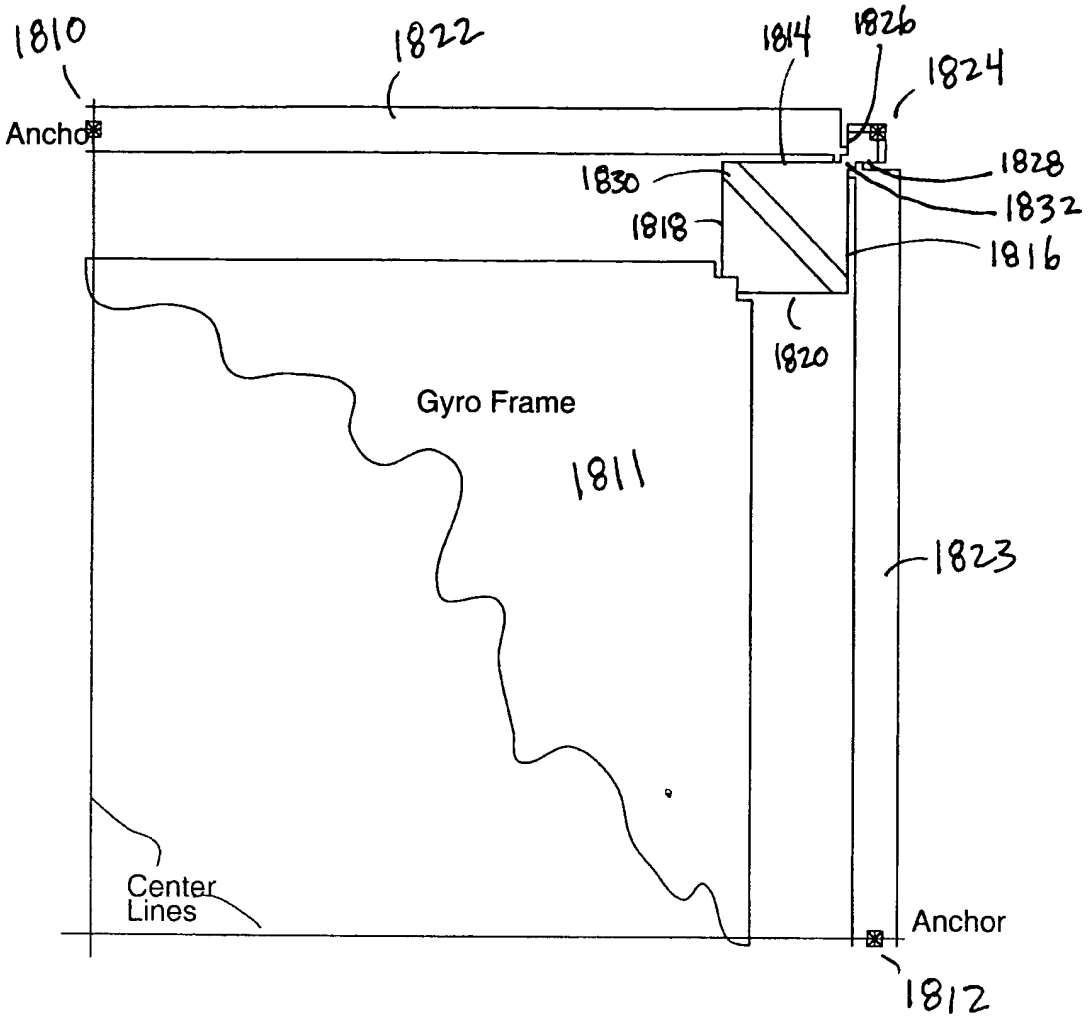

1810
1822
1814
1826
1824
Anchor
1830
1828
1832
1818
1816
1820
Gyro Frame
1811
1823
Center
Lines
Anchor
1812

FIG. 18 1800

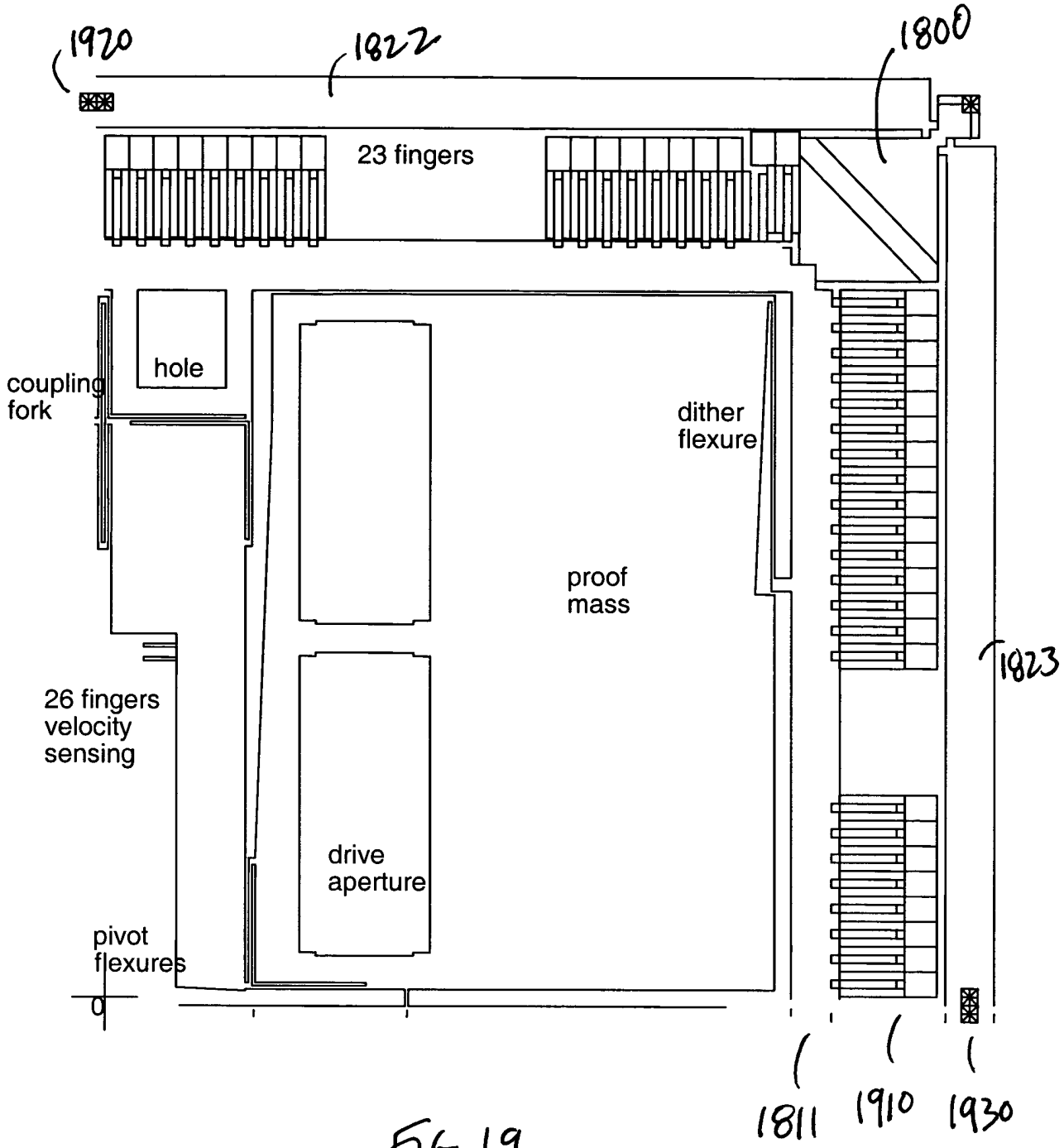

1920
1822
1800
23 fingers
hole
coupling
fork
dither
flexure
proof
mass
1823
26 fingers
velocity
sensing
drive
aperture
pivot
flexures
0
1811
1910
1930

FIG. 19

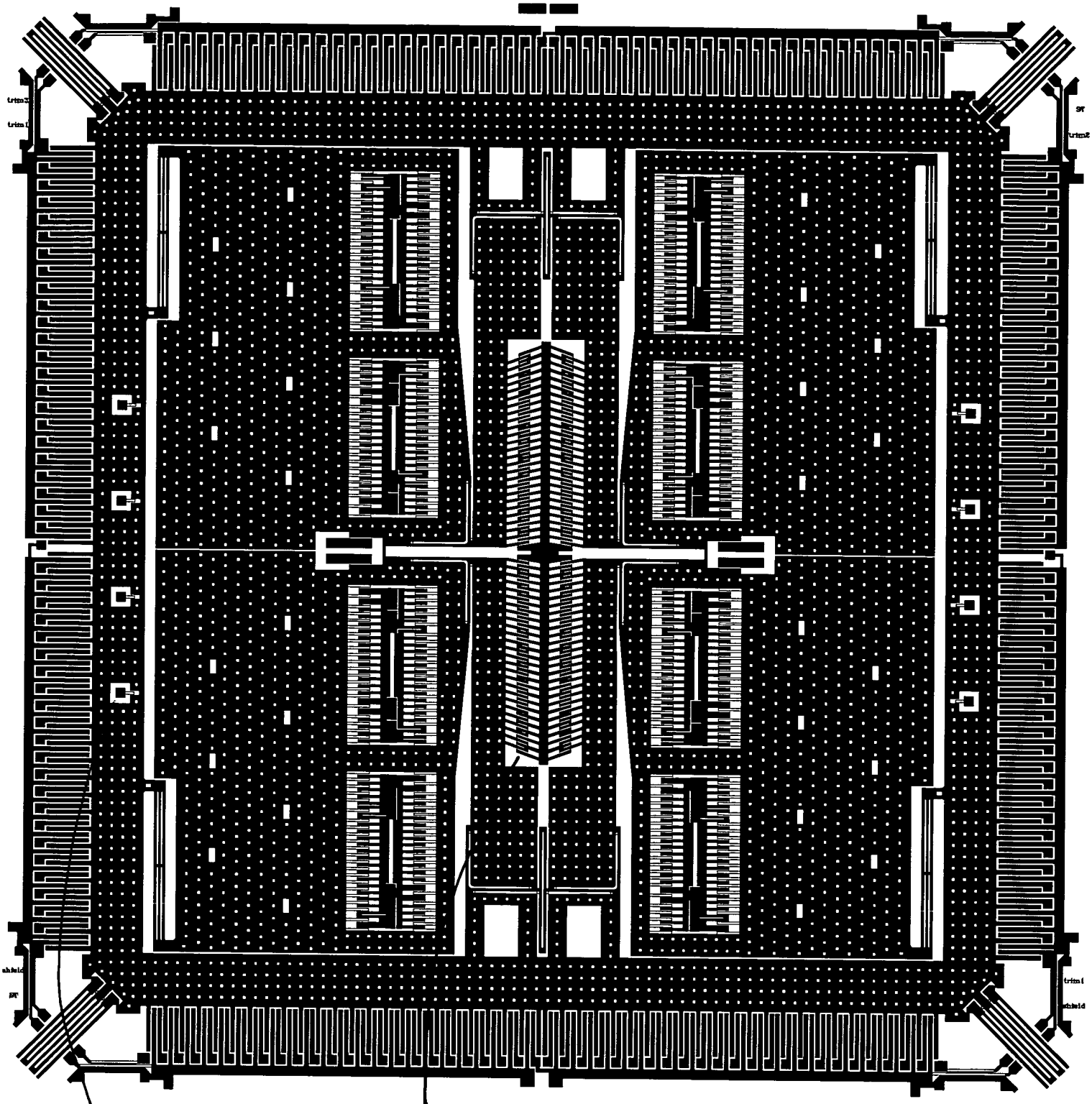


FIG. 20

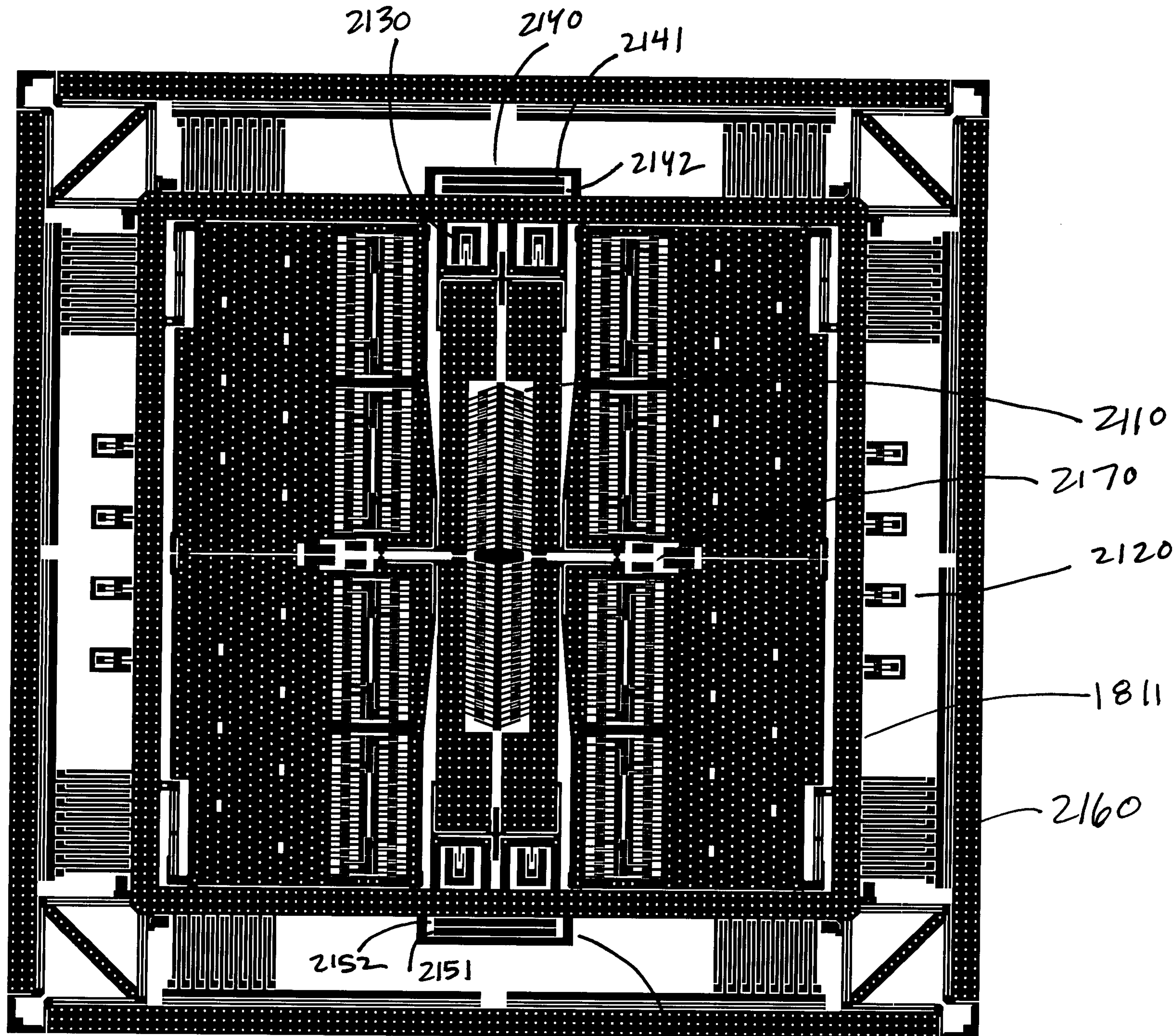


FIG. 21

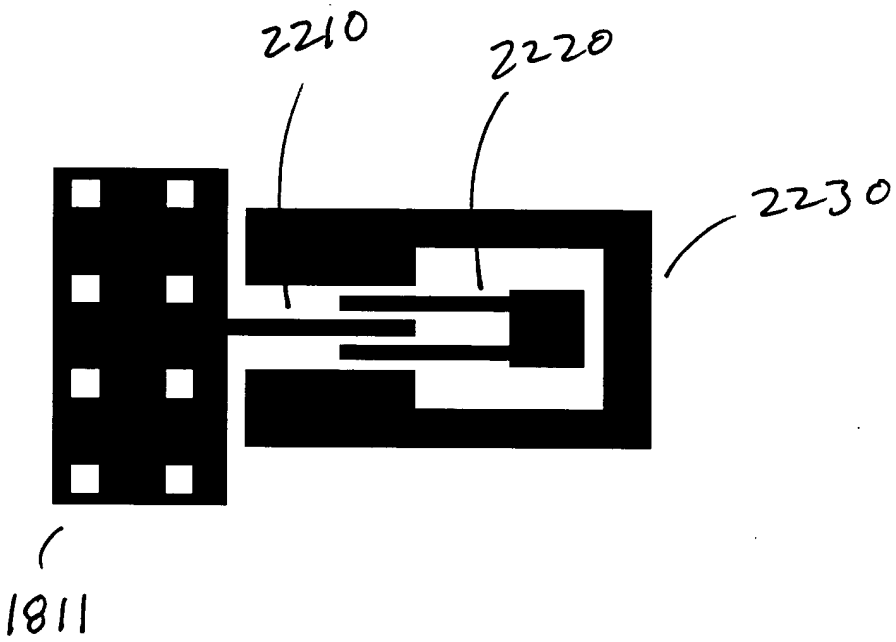


FIG. 22